

SUMMARY

The present invention discloses the differential expression of the human MAGUIN-1 and/or human MAGUIN-2 gene in specific brain regions of Alzheimer's disease patients. Based on this finding, this invention provides a method for diagnosing or prognosticating a neurodegenerative disease, in particular Alzheimer's disease, in a subject, or for determining whether a subject is at increased risk of developing such a disease. Furthermore, this invention provides therapeutic and prophylactic methods for treating or preventing Alzheimer's disease and related neurodegenerative disorders using a human MAGUIN gene. A method of screening for modulating agents of neurodegenerative diseases is also disclosed.